

IN THE CLAIMS:

Please cancel claims 1 – 27, amend claim 28, and add new claims 30-51, as follows:

1-27 (Canceled)

28. (Currently Amended) A method of querying semantic temporal events, said method comprising:

receiving a query request from a client at a search engine server;

retrieving data requested by said client from a data storage based on event based indexing; and

sending said data ~~retrieved by said retrieving~~ to said client.

29. (Original) The method according to claim 28, wherein said query request includes a semantic temporal event; said query request includes statistics of the occurrences of a semantic temporal event;

said query request includes statistics of a sports game; and

said query request includes descriptions of actions in a sports game.

30. (New) The method of claim 28, wherein event based indexing includes building an index to raw data stored in a data storage based on at least one of a detected event, an event statistic, and event action description.

31. (New) The method of claim 28, wherein said query request includes a semantic temporal event.

32. (New) The method of claim 28, wherein said query request includes

statistics of a sports game.

33. (New) The method of claim 28, wherein said query request includes statistics of the occurrences of a semantic temporal event.

34. (New) The method of claim 30, wherein said data sent to the client is a portion of the raw data.

35. (New) The method of claim 31, wherein said semantic temporal event includes a sports event.

36. (New) A method of querying semantic temporal events, said method comprising:

- retrieving multiple-layer models corresponding to said semantic temporal event;
- receiving temporal observations that are extracted, from at least one data source, according to said multiple-layer models for the semantic temporal event;

- detecting one or more occurrences of the semantic temporal event based on said temporal observations and said multiple-layer models by supplying said temporal observations to said multiple-layer models;

- characterizing said one or more occurrences of the semantic temporal event, detected by said detecting, to produce a characterization;

- storing said characterization;

- building indices to said temporal observations based on said characterizing;

- receiving a query request from a client;

- retrieving data requested by said client based on said indices; and

- sending said data to said client.

37. (New) The method according to claim 36, wherein said query request is received at a search engine server.

38. (New) The method according to claim 36, wherein said query request is

received at

39. (New) The method according to claim 36, further including storing said temporal observations in a data storage, and wherein said data requested by said client is retrieved from said data storage.

40. (New) The method of claim 36, wherein the indices are based on at least one of a detected event, an event statistic, and an event action description.

41. (New) The method of claim 36, wherein said query request includes a semantic temporal event.

42. (New) The method of claim 36, wherein said query request includes statistics of a sports game.

43. (New) The method of claim 36, wherein said query request includes statistics of the occurrences of a semantic temporal event.

44. (New) A method of querying semantic temporal events, said method comprising:

retrieving multiple-layer models corresponding to said semantic temporal event;
receiving temporal observations that are extracted, from at least one data source, according to said multiple-layer models for the semantic temporal event;

detecting one or more occurrences of the semantic temporal event based on said temporal observations and said multiple-layer models by supplying said temporal observations to said multiple-layer models;

characterizing said one or more occurrences of the semantic temporal event, detected by said detecting, to produce a characterization;

storing said characterization;

building indices to said temporal observations based on said characterizing;

performing temporal event prediction based on said characterization;

revising said multiple-layer models for said semantic temporal event based on said characterization; and

simulating parts of said semantic temporal event according to said characterization.

receiving a query request from a client;

retrieving data requested by said client based on said indices; and

sending said data to said client.

45. (New) The method according to claim 44, wherein said query request is received at a search engine server.

46. (New) The method according to claim 44, wherein said query request is received at

47. (New) The method according to claim 44, further including storing said temporal observations in a data storage, and wherein said data requested by said client is retrieved from said data storage.

48. (New) The method of claim 44, wherein the indices are based on at least one of a detected event, an event statistic, and an event action description.

49. (New) The method of claim 44, wherein said query request includes a semantic temporal event.

50. (New) The method of claim 44, wherein said query request includes statistics of a sports game.

51. (New) The method of claim 44, wherein said query request includes statistics of the occurrences of a semantic temporal event.